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Japanese Students in England and the Meiji Government's Foreign Employees (*Oyatoi*): The People Who Supported Modernisation in the Bakumatsu-Early Meiji Period

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I Introduction

In 1860, the Tokugawa bakufu (shogunate) dispatched a diplomatic mission with Shinmi Masaoki (1822-69) as chief delegate to the United States to complete ratification of the U.S.-Japanese Treaty of Amity and Commerce. Before it collapsed, the Tokugawa bakufu sent a total of six diplomatic missions overseas, of which this was the first. The second mission was dispatched in 1862 to negotiate postponement of the opening of the cities and ports of Edo, Osaka, Hyogo, and Niigata.[1] This second mission, sometimes called the "Bunkyu Mission of the Tycoon" after the era name for 1862, made official visits to France, England, Holland, Prussia, Russia, and Portugal. Its members were the first Japanese to visit England in an official capacity. How did they view England and the other countries? Their impressions and observations can be seen in the letters and diaries that they wrote at the time.

Compared to France, they thought England was "20 times better equipped with railways,

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[1] The third mission, headed by Nagaoki Ikeda (1839-79), was sent to France in 1864. The fourth (1865) was led by Special Commissioner Takenaka Shibata (1823-77) and its objectives were to gain experience and expertise in preparation for building the Yokohama dockyards. The fifth was dispatched to Russia in 1866, and was headed by Hidemi Koide(unknown). The last mission was sent to the Paris Exposition in 1867 and was headed by Akitake Tokugawa (1853-1910). See Toru Haga, *Taikun no shisetsu* [Mission of the Tycoon], Chuo Koron Sha, 1968, iii.

electrical machines, hospitals, schools, and manufacturers of cannons and other things."[2] Consequently, "It goes without saying that England is superior to any other great power, and its armaments factories and others are flourishing."[3] Perceiving England to be the world's most advanced nation, they believed that this was due to its development of armaments and industry.

In their view, Prussia ranked third in Europe: "After England and France, Prussia is the next most important power at this time."[4] Noting its achievements in the natural sciences, they declared that "especially in the sciences, [Prussia] is second to no country in Europe," and recognizing the advanced state of Prussian medicine, "Medicine is the most advanced of all the sciences, and there are a lot of doctors here [in Berlin]."[5]

The Bunkyu Mission of the Tycoon regarded England, France, and Prussia as the three greatest European powers, but its members were very critical of Holland, especially Koan Matsuki (Munenori Terajima: 1832-93). When he learned that Amane Nishi (1829-97) and Mamichi Tsuda (1829-1903) were not going to the USA as originally planned but were to study in Holland, Matsuki vigorously objected: "Things in Holland are not even one-hundredth as advanced as in England, France, and Germany. Tsuda and Nishi should not go to Holland."[6]

The harsh realities of 19th-century Russia were described by Arinori Mori (1847-89)[7] and others, but at this time many Japanese continued to see Russia through an older lens, as "having

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[2] Letter dated 10 May 1862, sender and addressee both unknown, in Nihon Shiseki Kyokai, ed., *Ihi nyuko roku* [On the Arrival of the Western Barbarians], vol.1, University of Tokyo Press, 1967, p. 234.

[3] Letter dated 9 May 1862, addressed to Ritsuzo Tezuka (1822-78), sender unknown, in Nihon Shiseki Kyokai, *Ihi nyuko roku,* pp. 226-27.

[4] Tokuzo Fuchibe, *Oko nikki* [Dairy of a Trip to Europe], in Nihon Shiseki Kyokai, *Kengai shisetsu nikki hensan*, vol. 3, University of Tokyo Press, 1971, p. 269.

[5] Koan Matsuki, Letter dated 14 Sept.1862, in *Ihi nyuko roku*, p. 245.

[6] *Ibid*., p. 250.

[7] When Arinori Mori (1847-89) visited Russia as a Satsuma overseas student together with Kanjuro Ichiki (1842-1919) he met with the bakufu students in St. Petersburg. His impression of Russia was that "Russian politics are not democratic. Everything depends on the tsar and therefore there are many unfair policies. A wise tsar means a well-ruled country, and an unwise one means chaos. All Russians view the tsar as a god. What complete stupidity and injustice! " He noted that it was a backward nation. Toshiaki Okubo, "Mori Arinori" in *Meiji ishin no jinbutsuzo* [Portraits in the Meiji Restoration] in the *Historical Works of Toshiaki Okubo*, vol. 8, Yoshikawa Kobunkan, 1989, p. 277.

chosen a site incomparably more vast than that of any other city in the world, on which to build a great city as the centre of power and authority from where virtue spreads."[8]

Through their experiences in Western Europe the diplomatic missions came to see England, France, and Russia as advanced nations, and Holland as a backward one. In particular they thought "England is the greatest power." This impression was confirmed during the military confrontations that occurred in Japan after this second mission returned to Japan in 1863, in particular the clash in Kagoshima between British naval vessels and Satsuma, whose military force proved inadequate. That loss by Satsuma convinced many patriots in the closing days of the Tokugawa shogunate to support the argument in favour of opening the country. The members of the missions, in addition to their own firsthand experience in Western Europe, were further persuaded by the advice of early foreign employees of the Japanese government. One was the businessman T. B. Glover (1838-1911), and another was G. H. F. Verbeck (1830-98), who was born in Holland and came to Japan as a Protestant missionary. The mission members believed Japan had to accelerate its modernisation by importing scientific knowledge and technology, especially military technology, together with the "Western civilisation" that supported this technology. Naturally they chose to import from the Western nations that they deemed to be the most advanced in each area.

There were at least three ways to import modern Western civilisation. The first was to send Japanese to the West to observe and study; the second was to hire foreign experts (*oyatoi*) to work in Japan; and the third was to introduce Western books and treatises to Japan and in many cases to translate them into Japanese. These three approaches were undertaken simultaneously, and they greatly facilitated the modernisation of Japan.

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[8] Wataru Ichikawa, *Obae oko manroku* ([A Confused Account of a Trip to Europe, Like a Fly on a Horse's Tail], of which title was translated by Ernest Masson Satow, 1843-1929; see Nobutoshi Hagihara, *Toi Gake – Ernest Satow nikki sho,* Asahi Shinbun Shuppan, 2007, p. 94), in Nihon Shiseki Kyokai, ed., *Kengai shisetsu nikki hensan*, vol. 2, University of Tokyo Press, 1971, p. 451.

Ⅱ Periodisation

Using changes made in the administration of overseas study during the Bakumatsu and Meiji eras as markers, we can divide the process of importing modern civilisation from the West into the following periods.

The first period is the one leading up to the bakufu's relaxation of the national seclusion policy (*sakoku*); a proclamation issued on 21 May 1866 stated that, "Those who want to travel overseas for purposes of study or commerce will be allowed to do so when they ask for permission,"[9] thus recognising the freedom to go overseas in order to observe and study in other countries. The first country to which the bakufu sent Japanese students after issuing the proclamation was England.

The second period is from that proclamation up to the issuance of "Rules on Traveling Overseas" (*kaigai ryoko kisoku*)[10] on 28 May 1869. Prior to the enactment of these rules, in January Meiji 1(1868) all Japanese students in Europe were instructed to return to Japan. That order was only a formality, however, marking the end of one system and the start of a new one. In fact, as we can see in the example of Toshimichi Okubo (1830-78),[11] the new Meiji government was eager to continue sending Japanese students overseas, especially to England, and the Rules on Traveling Overseas were enacted precisely to stimulate study abroad. The Rules provided for a passport (*kaigai ryoko menjo*) system, thus establishing government approval of travel abroad.

The third period is from the enactment of the Rules on Traveling Overseas up to the issuance of "Rules on Studying Overseas" (*kaigai ryugaku kisoku*) on 11 February 1871. On 3 July 1870, prior to enactment of the Rules on Traveling Overseas, the Ministry of Foreign Affairs carried out a "Survey of the Names of Japanese Students Overseas" (*kaigai ryugakusei seimei chosa*) and

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[9] Monbusho, ed., *Nihon kyoikushi shiryo* [Sources on the History of Japanese Education], vol. 7, Rinsen Shoten, 1970, p. 662. According to the third edition of the *Kindai Nihon sogo nenpyo* [A Chronological Table of Modern Japanese History] (ed. Iwnami Shoten, 1991), this proclamation was issued on 21 May 1866.

[10] Naikaku Kanpo Kyoku, *Horei zensho* [Compendia of Laws], 1887; Reprinted Hara Shobo 1974, pp.148-49. "Rules on Applying for Permission to Sail Overseas (*kaigai tokai shutsugan kisoku*) was issued in January 1870, to supplement the Rules on Traveling Overseas.

[11] Nihon Shiseki Kyokai, ed., *Okubo Toshimichi monjo* [Okubo Toshimichi Documents], vol. 3, University of Tokyo Press, 1967, pp. 11-12.

presented an opinion paper on reforms as a step toward systematising overseas study.[12] Here, the foreign ministry designated England, the USA, France, and Prussia as the countries to which Japanese students ordinarily would be sent. Only those students who "intend to study manufacturing, mechanics, and so on" were allowed to go to Holland and Belgium, and only those who "are to observe the process of nation building" were allowed to go to Russia. Finally, approval was given to go to China only to persons who "will study institutions and crafts." Thus, in this period, preparations were made to systematise the organisation of overseas study, and, as will be discussed later, progress was made to identify the countries deemed to be the best models for Japan's modernisation.

The fourth period is from the enactment of the Rules on Studying Overseas until 25 December 1873, when the Grand Council of State (Dajokan) issued a directive requiring all students studying abroad to return to Japan. Because of financial difficulties that were already being felt about the time when the February 1871 Rules were enacted, Kaoru Inoue (1836-1915), minister of finance, had insisted to the Japanese commissioners posted overseas that those students who were not making progress in their studies be sent home and that the number of students sent abroad at government expense be limited. However, it was the Iwakura Mission, which set out in November 1871, together with the Ministry of Education, that sought concrete policies to insure a more effective system of studying abroad. The Iwakura Mission was accompanied by 42 students, including five pioneering female students, but at the same time one of its primary tasks was to "examine and evaluate the progress in learning by students being educated abroad at government expense, and direct the unproductive ones to return to Japan."[13] The Ministry of Education considered it necessary to incorporate some such effective program of studying abroad into the

[12] For more details, see Minoru Watanabe (1977) *Kindai Nihon kaigai ryugakusei-shi* [A History of Overseas Students in Modern Japan], vol.1, Kodansha, 1977, pp.213-20.

[13] Kokuritsu Kobunshokan (National Archives), *Taishi zensho* [Ambassador Archives], Document no.23. Quoted in Hideyuki Aoyama, " Ryugakusei to Iwakura shisetsudan" [Overseas Students and the Iwakura Mission], in Akira Tanaka and Seiji Takada, eds., *Beio kairan jikki no gakusaiteki kenkyu* [Interdisciplinary Research on Observations in the West], Hokkaido Daigaku Tosho Kankokai (Publishing Association of Hokkaido University), 1993, p.355.

"Education Law" (*gakusei*; 5 September 1872) that established Japan's modern education system. Those movements toward reform of the system of overseas study by the Meiji government were what prompted the December 1873 Dajokan directive.

Following that directive requiring government-sponsored students to return to Japan, "Observances and Instructions for Students Returning from Abroad" (*kicho ryugakusei kokoroe kajo*)[14] was issued in March 1874. In June, study abroad was further regulated with the establishment of a system of supervising overseas students, and in May 1875, "Rules on Ministry of Education Scholarship Students Abroad" (*monbusho taihi ryugakusei kisoku*) was put into effect. The government-funded study-abroad project was thus revived, and this marked the end of the fifth period.

In order to manage Japanese students abroad more closely—at least those on government scholarship—another set of rules, "Regulations for Government-funded Overseas Students" (*kanpi kaigai ryugakusei kisoku*), was issued in February 1882, and in 1903 "Rules for Ministry of Education-sponsored Overseas Students" (*Monbusho gaikoku ryugakusei kitei*) was added to the others. The sixth period lasted until these rules were promulgated. The purpose of the Ministry of Education regulations was to create a "stronger framework centered on the national government in which to structure government-funded study abroad . . . and to limit programs of study abroad to students at national institutions of higher learning."

This paper examines the dynamic process of "importing Western civilisation" during the period that began in the final years of the Tokugawa shogunate, continued through the departure of the Iwakura Mission and promulgation of the Education Law of 1872, and ended with the return of the Mission 1873, that is, through the fourth period. Within this framework I attempt to provide an overall picture of the cultural exchange between the model country, England, and Japan during

[14] These "observances" removed the obligations stipulated in the "Education Law " (*gakusei*) and "Supplement to the Education Law" (*tsuika*) to take an examination on returning to Japan and for government students to become government bureaucrats.

those years.[15]

Ⅲ Goals of Studying in England

In the closing days of the Tokugawa shogunate, what drove some of Japan's most competent, active, and patriotic young people to bypass the restrictions of the policy of national seclusion and leave Japan in their quest for learning in other countries? In 1863, a year after the "Bunkyu Mission of the Tycoon" had been sent to Europe for diplomatic negotiations and observations, Japanese students went to England for the first time. The initial group consisted of five students all from the Choshu domain. These young men, the so-called Choshu Five, were: Kaoru Inoue, Hirobumi Ito (1841-1909), Masaru Inoue (1843-1910; as a student he was known by his adoptive name Yakichi Nomura), Yozo Yamao (1837-1917), and Kinsuke Endo (1836-93). Their mission was to "go abroad and study naval science" so that they could contribute to strengthening the military power of the Choshu domain, and therefore that of Japan, thus supporting the campaign to keep foreign powers out—or as a popular rallying cry put it, to "expel the barbarians" (*joi*). When they stopped in Shanghai on their way to England, however, they saw for the first time the physical evidence of the military strength and economic power of the West with their own eyes. At that time, it is said, Kaoru Inoue made up his mind that "the misperceptions held by the advocates of 'expelling the barbarians' had to be corrected, and our country had to be opened to foreign intercourse."[16]

The Satsuma domain, which sent two supervisor and 15 students to England in 1865, and the Tokugawa shogunate, which sent the first group to Holland, were similarly motivated by the

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[15] For this route, see Takutoshi Inoue, *Reimeiki Nihon no keizaishiso* [Modern English Economic Thought and Japan's Modernistion: Japanese Students in England, Foreign Employees, and the Institutionalisation of Economics], Nihon Hyoron Sha, 2006, chap.5-11, and Shigeki Toyama and Toshiko Adachi, "Dajokan shosho enkakushi" [A Short History of the Dajokan (Grand Council of State) and Ministries], in *Kindai Nihon seiji hikkei*, Iwanami Shoten, 1961; Eiki Suzuki, "Kaika seisaku to hon'yaku/Yogaku-kyoiku—Okurasho Hon'yakukyoku to Seki Shinpachi/Kyogaku Gakusha" [The Opening of Japan and Translation and Western Learning : Translation Bureau of the Ministry of Finance and Seki Shinpachi's Kyogaku School in Shiro Yamamoto, ed., *Kindai Nihon no seito to kanryo* [Parties and Bureaucrats of Modern Japan], Tokyo Sogensha, 1991.

[16] Yoshio Sakatani *et al*., *Seigai Inoue-ko den* [Count Inoue: A Biography], Naigai Shoseki Kabushiki Kaisha, 1933, pp. 84-85, 91.

determination to build a powerful army and keep Japan free of foreign control. The Satsuma study-abroad plan was created by Tomoatsu Godai (1835-85), who went with the students to England as a supervisor. In 1863, eager to help rid Japan of the foreign presence, he had participated in the Anglo-Satsuma conflict, but Satsuma's defeat and Godai's experience as a prisoner of war turned him into an advocate of opening the country to the outside world. He sent a petition to the Tokugawa shogunate[17] proposing, first, to export rice via the Shanghai trade route; second, to use the proceeds from the rice exports to import sugar-refining machinery; and third, to create revenue by using that machinery for mass production and sale of refined sugar. Godai argued that the capital accruing from the sugar industry would make it possible to finance study abroad by Japanese students. Furthermore, he urged, a program that linked the goals of fostering local industry and promoting education would make it possible to buy not only arms but also to import coinage machines and spinning jennies, thus helping to realise the goal of building a powerful national army and creating wealth for the country. Koan Matsuki who could see the practical benefits in Godai's concept, went with him to England, also as a supervisor.[18]

The students sent by the Tokugawa shogunate were affected by the same circumstances. The policy of national seclusion formally still obtained and in the interest of maintaining it, the Tokugawa government saw the problem of maritime defense as an urgent necessity. The first students sent to Holland, therefore, were to confine their studies to "the practical aim of acquiring knowledge of military technology," including navigation skills and methods of manufacturing arms, which were needed to maintain Japan's defense. "Studying in a foreign country was only

[17] Koshaku Shimazu-ke Hensanjo, ed., 1928, Reprinted Hara Shobo, 1968; *Sappan kaigun-shi* [A History of Satsuma's Navy], vol.2, pp. 867-88.

[18] Takaaki Inuzuka, *Satsuma-han Eikoku ryugakusei* [Students from Satsuma Domain in England], Chuo Koron Sha, 1960, pp. 5-13. During his stay in Paris, Godai wrote the following, and confirmed that his view of England before he left Japan to study overseas had been correct. "Like Japan, England is an isolated island, but the natural wealth and fertility of its soil cannot be compared to Japan's. Despite that, England is a rich country and, with a strong army, it rules the globe, and none can rival it." Letter, dated 29 November 1865, addressed to Uemon Katsura, in *Sappan kaigun-shi*, vol. 2, p. 945.

incidental,"[19] simply a means to achieve that end.

Regardless of the pressure to achieve practical, technical, national objectives, as early as 1866 when the bakufu sent off its second batch of students to England, there were some who were convinced of the need to acquire "a liberal education" (*futsugaku*) that included all the sciences, not just natural science. One was Tadakiyo Mizuno (1832-84), a member of the shogun's Council of Elders (*roju*). He understood that acquiring only military technology was not enough. Recognising that natural science and technology, whether military technology or any other, were the product of a civilisation and that technology could not be separated from civilisation, he argued that any real understanding of technological matters depended on a grounding in the ideas underlying the other areas of knowledge, the other sciences of the civilisation. Mizuno had occasion to meet with Harry S. Parkes (1828-85), who was the British minister in Japan from 1865 to 1883. At one time he said to Parkes, "Simply learning military technology is only a detail. I would like Japanese students to acquire wide knowledge of all the sciences, including politics and the military system."[20]

The bakufu, with advice from foreign countries, began sending students overseas beginning with Holland in 1862. Some were sent to Russia in 1865, some to England in 1866, and some to France in 1867.[21] As Japanese experience with study in other countries grew deeper and more varied, the aims of studying abroad were broadened from acquiring knowledge only of military technology to undertaking studies in a wide range of fields, and even before the beginning of the Meiji era, countries where Japan sought models in one field or another increased from just Holland to include England, the United States, France, and Germany (Prussia). There was, then, a change of

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[19] Minoru Ishizuki, *Kindai Nihon no kaigai ryugakusei-shi* [A History of Modern Japanese Overseas Students], Chuo Koron Sha, 17992, pp. 29-30.

[20] Masao Takahashi, *Nakamura Masanao* [Masanao Nakamura], Yoshikawa Kobunkan, 1966, p.135; Minoru Ishizuki, *Kindai Nihon no kaigai ryugakusei-shi*, p. 44.

[21] One student from the Aizu domain who was sent to study in France 1867 judged each European country as follows. "Russia consists of wild lands and is far from civilised. All it can be proud of is its vast land and huge population. England can be proud of its large social connections and well-equipped machinery. Austria is a righteous traditional country and was beaten by Prussia. Prussia is the only country that Austria is afraid of. Prussia is a new, vigorous country with brave soldiers. It is like a newly sharpened sword " (*Hoan iko*, 1900, cited in Minoru Ishizuki, *Kindai Nihon no kaigai ryugakusei-shi*, p.137). Thus he noticed the progressiveness of England and the

direction during this period, from the bakumatsu policy of "build a powerful army and expel the barbarians" to the Meiji government's goal of building a "rich country and powerful army." And England, which appeared to be the most advanced, with its "railways, electrical machines, hospitals, schools and manufacturers of cannons and other things," replaced Holland as the country perceived as offering the best models for Japan. If we consider how instrumental the Bunkyu Mission of the Tycoon to Western Europe was in shifting the central focus of Japan's attention from Holland to England, we can better appreciate the historical significance of that mission.

Ⅳ Japanese Students in England: The Realities

Let us consider how many Japanese students went to England between 1860 and 25 December 1873, when all overseas students (373) were ordered to return to Japan.[22] The figures in Table 1 indicate that during the first of the periods in our time frame there were 27 students, beginning with the five sent abroad by the Choshu domain in 1863 and followed by 17 (excluding two supervisors) sent by the Satsuma domain in 1865. In the second period, 39 students went abroad, beginning with 16 (excluding two supervisors) whom the shogunate sent in 1866. Only 11 students went abroad in the third period, but in the fourth period, when the Meiji government adopted a policy to encourage studying abroad and in February 1871 issued the Rules on Studying Overseas, the number increased to 131. Then, in 1873, reflecting the government's financial difficulties, the number suddenly decreased to 11 during the fifth period.

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future potential of Prussia compared to the backwardness of Russia and Austria.

[22] A number of statistical materials exist on this subject, but it is virtually impossible to confirm the numbers given. Because the analysis of this paper focuses only on those students whose names have been confirmed by the author, the number of students is smaller than given, for instance, by Minoru Ishizuki, *Kindai Nihon no kaigai rygakusei-shi*. The author plans to continue his research

Table 1. Students Sent to England Annually and Their Professions after Returning to Japan*

Year of Study Overseas		Number of Students	Politician	Official							Private			Unknown
				Foreign Affares	Finance	Engineer	Justice	Education	Military	Others	Business	Education	Others	
I	1863	5	2+0		4	2								
	1864													
	1865	22	1+0	6	1	3		3	1	1	4			7
II	1866	21	0+1	3	4	4		5	3	1		4	1	3
	1867	7		2		1	1		2					2
	1868	11	0+1	1	5				2		1			4
III	1869	11			2	2			3				1	3
IV	1870	44	0+2	4	4	3		1	5	1	3		2	17
	1871	68	0+3	3	7	3	2	4	10	4	2	1		27
	1872	19		1	3	2		1	1	2			4	4
V	1873	11		1	1			1		1		1	1	5
Unknown		16												16
Total		235	3+7	21	31	20	3	15	27	10	10	6	9	88

* Data shown include figures through 1873 that the author has been able to confirm from various sources. For names of individuals, see Takutoshi Inoue, "*Bakumatu・Meiji・Taisho-ki Nihonjin ryugakusei shiryo* [List of Names of Japanese Students in England, 1862-1926], *Keizaigaku-ronkyu* [*The Journal of Economics of Kwansei Gakuin University*], vol. 56, No. 4 (2003) and vol. 57, No. 1 (2003). In principle, the numbers include neither diplomatic personnel, observers, nor others on temporary visits, nor diplomats posted to England. As for post-student professions, in some cases two main professions are listed for an individual, and so the total numbers of students and number of professions do not always match. Since organisations and positions underwent change during these years, the professions of the individuals have been placed in general categories. Of the two numbers (ex., 1+0) given in the "Politician" column, the latter number designates those who were activists in the Freedom and People's Rights movement or members of opposition parties.

Next, based on data from other sources, the number of students sent to England each year will be compared with the numbers sent to the United States, France, and Germany. According to Table 2, during the first and the second periods (1863-1868), 63 students were sent to England, 49 to the USA, 37 to France and only two to Germany. During the third period (1869), three students were sent to England, four to the USA, none to France, and three to Germany.

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and provide a more accurate account in the future.

Table 2. Students Sent to Four Key Countries in the Bakumatsu and Early Meiji Periods*

		England	USA	France	Germany	Total
Ⅰ・Ⅱ	Bakumatsu	57 (41%)	47 (34%)	34 (24%)	1 (1%)	139
	1868	6 (50%)	2 (17%)	3 (25%)	1 (8%)	12
Ⅲ	1869	3 (30%)	4 (40%)		3 (30%)	10
Ⅳ	1870	53 (30%)	66 (38%)	24 (14%)	31 (18%)	174
	1871	71 (35%)	86 (42%)	17 (8%)	30 (15%)	204
	1872	18 (21%)	46 (54%)	15 (17%)	7 (8%)	86
Ⅴ	1873	10 (59%)	2 (12%)		5 (29%)	17
Ⅵ	1874	3 (30%)	6 (60%)		1 (10%)	10
Unknown		9 (38%)	11 (46%)	1 (4%)	3 (12%)	24
Total		230 (34%)	270 (40%)	94 (14%)	82 (12%)	676

*Source: Minoru Ishizuki, *Kindai Nihon no kaigai ryugakuseishi* [A History of Modern Japanese Overseas Students], Mineruba Shobo, 1972; “Chuko bunko 880,” Chuo Koron Sha, 1992, pp. 142, 204.

In the fourth period (1870 -1872), 142 students were sent to England, 198 to the USA, and 56 to France, while the number sent to Germany suddenly increased to 68. During the last (fifth) period (1873), ten students were sent to England, the number sent to the USA plummeted to two, none were sent to France, and five went to Germany.

Next, let us consider the number of students staying in each country in the early Meiji period. Figures in Table 3 show that in November Meiji 3 (1870), there were 47 students (31% of the total) in England, 74 (49%) in the USA, 25 (17%) in France, and only four (3%) in Germany. In September Meiji 4 (1871) there were 107 students (41%) in England, 98 in the USA (the percentage fell to 38%), 14 in France (again a decrease to 5%), whereas the number in Germany suddenly rose to 41 (16%).

In July 1873, there were 50 students (31%) in England, 46 (29%) in the USA (again a decrease) and 23 (14%) in France (a slight increase). In Germany, however, the number was 54 in March of

the previous year, and although it fell to 42, it still made up 26 percent of the total number.

Such a large increase in the number of students in Germany becomes even more striking if we compare the number in Meiji 3(1870) with that in 1873 (Meiji 6). The number of Japanese students studying in Germany in 1873 was about ten times as large as it had been in 1870. On the other hand, the number of students studying in England and France hardly changed, while the number in the US halved.

Table 3. Total Japanese Students Living in the Four Key Countries

	England	USA	France	Germany	Total
Nov., Meiji 3 (1871)	47 (31%)	74 (49%)	25 (17%)	4 (3%)	150
Sep., Meiji 4 (1872)	107 (41%)	98 (38%)	14 (5%)	41 (16%)	260
March, Meiji 5 (1873)	125 (39%)	122 (38%)	23 (7%)	54 (17%)	324
July, 1874	50 (31%)	46 (29%)	23 (14%)	42 (26%)	161
	8 (19%)**	10 (24%)	6 (14%)	18 (43%)	42

* Sources: Fujio Shimomura, *Meiji shonen joyaku kaiseishi no kenkyu* [A Study on the History of Treaty Revision in the Early Meiji Era], Yoshikawa Kobunkan, 1962, pp.140-45; Minoru Watanabe, *Kindai Nihon Kaigai Ryugakusei-Shi* [A History of Overseas Students in Modern Japan] pp.251, 253, 262-63 and 266, Kodansha, 1977, and C. Nishida, N. Hagihara, M. Kawasaki, S. Sugiyama, and T. Inoue, *Baba Tatsui zenshu* [Collected Works of Tatsui Baba], vol. 4, pp.31-33, Iwanami Shoten, 1988.
** The figures in ( ) indicate the percentage of Japanese in each country permitted to continue their studies in the interest of maintaining Japan's overseas study program, even though all overseas students were directed to return to Japan in December 1873.

Furthermore, when we consider the number of students who were exempted from the directive requiring all students abroad to return Japan in 1873 and allowed to continue their studies abroad, we find that eight (19%) remained in England, ten (24%) remained in the United States and six

(14%) remained in France, while 18 (43%) remained in Germany. As a percentage of the total number of the original students in each country, those figures indicate that only 19 percent of students in England, 24 percent in the United States, and 14 percent of those in France were allowed to continue their studies, in contrast with almost half of the students in Germany (43%).

Ⅴ Post-Study Abroad Professions

What professions did the overseas students pursue after their return to Japan? I want to examine this topic next, drawing on the work I have done so far to survey the careers of individual students. From Table I we can see that, of the 235 students sent overseas by 1873, ten became politicians, of which seven were involved in opposition politics, including activists in the Freedom and People's Rights movement (*jiyu minkenka*). Of the 127 who became government officials, an extremely large number (31) worked either for the Ministry of Civil Affairs (*minbusho*) or the Ministry of Finance (*okurasyo*). The next largest group (27) were employed in the military, particularly the Japanese Navy. Others worked for the Ministry of Foreign Affairs (*gaimusho*) (21); the Ministry of Technology (*kobusho*) (20), and the Ministry of Education (15). On the low end, only three had judicial careers. A total of 25 moved into the private sector after their return to Japan, ten of whom went into business and six into education.

Going by information in Table 4, out of 80 Japanese students who in 1873 were in England, 32 became government bureaucrats; 13 went into the private sector; and three became involved in the Freedom and People's Rights movement. So far I have been unable to determine and follow up the professional careers of 39 of the total.

Table 4. Japanese Students in England 1873 and Their Professions after Returning to Japan*

Year of Study Overseas	Number of Students	Politician	Official							Private			Unknown
			Foreign Affares	Finance	Engineer	Justice	Education	Military	Others	Business	Education	Others	
1873	80	0+3	5	7	7	1	2	6	4	6	2	5	39

* *Baba Tatsui zensyu*, vol. 4, pp.27-31.

Some of the returning students carved out very productive lives, as can be seen above. Quite a few, however, including those who died while studying overseas, ended their lives without leaving behind any quantifiable achievements for the nation or society. As many as 88 students fall into that category, almost 37 percent of the total number of overseas students that year (Table 1). Those numbers are a strong indicator of how ineffective, in terms of the national return, the study-abroad system was at that time, especially when compared to the great expense it incurred. Thus, because of the financial difficulties Japan was experiencing at the time, it became an urgent matter to improve the system as quickly as possible. That is why the directive requiring all students studying abroad to return Japan was issued. It was intended to be a preparatory step toward establishing a more effective system of acquiring knowledge by educating Japanese in foreign countries.

Ⅵ Search for a Model Country

The goals of Japan at that time were to build a rich country and a powerful military. To implement that objective, it sought to build an effective and efficient program of study abroad as a productive way to import Western civilisation. Thus it was important to choose carefully when selecting countries to import and learn from. Much rode upon which "model countries" it chose. Inevitably countries were assessed in terms of what they had to offer and the particular technologies and social systems Japan was interested in. Japan's search was based on information gained from, and various written materials brought to Japan by Western individuals, and on information brought by Japanese returning from Europe and the United States, beginning with the Bunkyu Mission of the Tycoon (1862) and including bakufu missions and students sent abroad by their domains. To establish an orderly system of studying abroad, a document stipulating the countries where students should be sent and exactly what they should learn in each one was drawn up in 1870. That was "Subjects to be Studied in Designated Countries" (*Ryugaku kuniguni shugaku kamoku*).[23]

[23] The author has examined two versions of this material to date. One is "Ryugaku kuniguni

That document set forth five countries, "England, France, Prussia,[24] Holland, and the USA," as the countries to which students should go to study: "Out of every 100 students, one half should be sent to England, France, and Prussia, and the other half should go to Holland and the USA." The importance of Holland and the United States was played up, but there was some flexibility in actual implementation. "Countries are listed according to their strengths in certain subject matter, but on occasion, in practise these considerations can be waived."

The guidelines stipulated that students in the United States should study "the postal system, technology, agriculture, cattle-breeding, commercial law, and mining sciences" should be learned in the USA; in France, "law, tax law, civil law, criminal law, civil procedure; sociology (*kosaigaku*); international public law; methods of improving welfare; transport, production methods, means of collection and distribution, monetary (notes and coins) system, zoology and botany; state building, commodity listing and methods of controlling political movements; astronomy; mathematics; natural philosophy (*kakuchigaku*); chemistry; and architecture." Students in Germany should study "political science; political economy; philosophy; astronomy; geotechnology and epigraphy; chemistry; zoology and botany; medicine; pharmacy; and methods

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shugaku kamoku" [Subjects and Each Country's Forte], which is contained in the Saneomi Hirosawa documents in the Kensei Shiroshutsu of the National Diet Library (this material is also available in Hideyuki Aoyama, "Rugakusei to Iwakura shisetsudan" [Overseas Students and the Iwakura Mission], in Akira Tanaka and Seiji Takada eds., "*Beio kairan jikki..*" The other is "Ryugaku kuniguni shugaku no koto" [On the Subjects in Countries for Overseas Study], which is contained in the *Okuma Shigenobu monjo* [Okuma Shigenobu Documents], A 4251; these are also available in Kunio Maruyama, *Nichi-Doku kotsu shiryo* [Materials on Traffic in Japan and Germany], no. 3, 1936; and a part is contained also in a work by Nihon Kagakushi Gakkai, ed.,*Nihon kagaku gijutsu taikei* [An Outline of Science and Technology in Japan], no. 1, Daiichi Hoki Shuppan, 1968. In 1870, Saneomi Hirosawa (1834-71) was a commissioner of the Minbusho. Shigenobu Okuma (1838-1922), on the other hand, was both minister of the Minbusho and minister of Okurasho when those two ministries were amalgamated in August 1869. When in July 1870 the Minbusho and the Okurasho were again separated, he was released from his position as minister of Civil Affairs, and became minister only of the Ministry of Finance. Considering those circumstances, this document was possibly made when the two ministries were amalgamated and circulated within the ministry as internal material. These two are virtually identical, though there are slight differences in the use of Chinese characters. The biggest difference is that there is no mention of chemistry in the section on Germany in the Hirosawa documents.

[24] In the original text of this material, the word "Prussia" was used to designate the destination country for students, but in the "Subjects According to Each Country," the word "Germany" was used. This example shows how quick the Meiji government was at collecting and processing the latest Western information.

of schooling and public and private schools." Finally, in Holland, a country whose importance had declined in Japanese eyes—"water supply; science of embankment and bridging, riparian engineering (*chisen)*; architecture; political science; political economy; methods of issuing government bonds, and law of the poor."

What about England? The following subjects were to be studied in England: "mechanics, mechanical engineering; commercial law; trade, gold and silver exchange; corporate organisation; geotechnology and epigraphy; mining; zoology and botany; iron manufacturing; methods of running iron plants, machinery management; architecture; construction; ship building and ship repair; cattle-breeding: using suitable seaweeds; methods of breeding the six main domestic animals and technology to change sex, law of the poor; orphanages, poor houses; organizing different kinds of hospitals and other institutions (public and/or private)."

A long list of additional subjects that Japanese needed to master followed, although no specific country was designated as the place where they should be studied. The list goes, "Various subjects related to politics; rules and regulations of maritime customs and enforcement methods, enforcement methods in civil life; laws of census register, stamp duty laws, purchase and sale of land and houses, lease of gold and silver, laws governing the market price of commodities, laws establishing villages and roads, business of the members of an assembly, laws pertaining to offices (of assembly members) and elections, laws of overseas missions; regulation of elections, limiting power, decentralisation of authority, stipends for government clerks, system of bonuses, laws of life pension and seasonal bonuses, methods of rewards and fines, regulation of prisons; various subjects related to tax law; land tax collection law, commodity tax collection law; distinction between agricultural, industrial, and commercial tax; distinction between direct tax and indirect tax; method of distributing tax offices around the country; various subjects concerned with commerce; management methods, the law of contracts and promises among companies and limitations on assistance from government; associations of prominent families, professional societies, associations of financiers, various subjects concerned with manufacture and craft; workshop methods;

engineering, operating, maintaining steam engines, steamships, horse carriages, and telegram; cotton-spinning, manufacturing china, glass, and ceramics, leather manufacturing methods, dying methods, printing methods, paper manufacturing methods, methods of foliating gold, silver, and tin, galvanizing method, electric cell (not mentioned in *Hirosawa' documents*), methods of electric service, and others; methods of manufacturing daily commodities and foods, etc."

From the choice of subjects listed above, it is clear that preference was given to areas that would best support the policy of increasing production and promoting industry. Kaoru Inoue, for example, who had studied in England himself, when reviewing the system of overseas study recognised that it was necessary to go abroad to get expertise in certain fields, but he believed that the aim was to study "technology." The study of "higher culture" or "morals" was "not urgently needed,"[25] he said, for these could be learned from books.

Inoue and others held onto attitudes like that. In 1876 he went to England with Jugo Sugiura (1855-1924) and Joji Sakurai (1858-1939), the second group of officially sponsored students. It is reported that Inoue, "going into great detail about Japan's politics and economy, and explaining how our country had to strengthen its industry and increase production," advised Sakurai, who was studying chemistry at University College, London, to study the manufacture of alkali, and Sugiura, who was studying chemistry at Owens College, Manchester, to study the manufacture of dyes.[26]

Japanese clearly gave immense and careful thought to what exactly needed to be learned for the modernisation of the country. They considered a very broad range of subjects, not only in areas such as politics and political economy, but also in all sorts of areas relating to minute particulars of everyday life. They made detailed lists of all the subjects and selected the places where each subject could be studied most efficiently. Regarding England, they felt an urgency to learn the subjects that underpinned a nation "20 times better equipped" than France with railways, machines, industry,

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[25] Kunihei Nakahara, ed. & pub., *Inoue-haku den* [A Biography of Count Inoue], vol. 2, 1904 (Reprinted Masono Publishers.1994), pp. 481-82 (Minoru Ishizuki, *Kindai Nihon no kaigai ryugakusei-shi*, pp. 214-15).

[26] Yoshio Sakatani *et al.*, *Seigai Inoue-ko den*, vol. 2, pp. 735-36.

education, medicine—the most outstanding nation among the great powers. Thus, based on the regulations that governed studying abroad, which were decided just when the work to enact the 1871 Rules on Studying Overseas was in progress, overseas study in the fourth period and onward was carried on centred on the Japanese Ministry of Education.

Ⅶ Foreign Employees (*Oyatoi*): Their Circumstances and Role

Of the foreigners who started coming to Japan as the Tokugawa shogunate came to an end and the Meiji period began, many were diplomats, merchants and traders, missionaries, and so on, but others were individuals with certain kinds of expertise employed to work in Japan and known as *oyatoi gaikokujin*, or foreign employees. The Japanese term was first used in the *Oyatoi gaikokujin ichiran* [Table of Foreign Employees] in 1872.[27] *Oyatoi* were "foreigners, mainly from advanced Western nations, who were invited to Japan and employed by Japanese from the bakumatsu period onward in the expectation that they would help to quickly introduce modern Western culture."[28] What must be noted is that although the foreigners were referred to with a term of respect, they were regarded, from first to last, as wage workers "employed" by Japanese. It was of great importance in the course of Japanese modernisation that, whether the employer was the central or a local government or a private company, the Japanese always retained autonomy.[29]

To have that autonomy gave the Japanese employers complete freedom to hire or dismiss foreigners as they saw fit, to use them as a means of carrying out aims that the Japanese side determined themselves. To that extent, the foreign employees succeeded in instructing Japanese and facilitating an efficient, prompt transplant of aspects of Western civilisation. Most notably, they brought their expertise to bear in teaching and applying the natural sciences and technology, which

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[27] Meiji Bunka Kenkyukai, *Meiji bunka zenshu* [Encyclopedia of Meiji Culture], vol.17 *Gaikoku bunka hen*, reprinted Nihon Hyoronsha, 1992, pp. 347-62.
[28] Noboru Umetani, *Oyatoi gaikokujin: Gaisetsu* [Foreign Employees: An Introduction], Kashima Kenkyusho Shuppan, 1968, p. 8.
[29] Ardath Burks, "The West's Inreach: The Oyatoi Gaikokujin," Ardath Burks, ed., *The Modernizers: Overseas Students, Foreign Employees, and Meiji Japan*, Westview Press, 1985, p.192.

were used to introduce the modern systems and capitalistic manufacturing procedures of the advanced Western countries that Japan regarded as models. They were frequently treated as short-term workers to run and operate newly-imported systems and machines that Japan needed at the time. Just as Japan sent students overseas to turn them into "living machines"[30] that would help drive the country's modernisation, it also imported "fully-formed living machines" from overseas. And, when it was judged no longer in Japan's interest to continue employment of an individual, that person could be summarily dismissed. This happened in the case of an *oyatoi* employed at the Mint; when the Meiji government determined that Japanese had become adequately skilled in the necessary technology, it was able to dismiss the foreign experts.[31]

How many foreign employees were there? Let us examine the numbers in terms of three periods. The first period begins in 1825 when the Exclusion Edict was promulgated, barring unauthorised foreign ships from Japanese waters, continues through the Edict's annulment in 1842 and the arrival of Commodore Perry in 1853, and ends with the bakufu's establishment of the Nagasaki Navy School in 1855. The second period begins in 1860 when the bakufu sent an embassy to the United States and ends in mid-1868. The third period is from late 1868 (the first year of Meiji) until 1875, the peak year for foreigners employed by official agencies.[32] Since chronological data can be obtained from the *Nihon Teikoku Tokei Nenkan* [Yearbook of Statistics of the Japanese Empire] only for the years after 1872, for the years before that, I rely on information from other sources.

According to *Rai-Nichi Seiyojin jinmei jiten* [Biographical Dictionary of Westerners in Japan], a detailed and comprehensive dictionary that lists foreign employees and other Westerners as well,

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[30] Masaya Shimada *et al*., *Za yatoi—Oyatoi gaikokujin no sogoteki kenkyu* [The Yatoi: Joint Research on Foreign Employees], Shibunkaku Shuppan, 1987, pp. 14 and 153.

[31] Okurasho Zoheikyoku, *Zoheikyoku hyakunenshi* [A Century of History of the Japanese Mint], 1976, pp. 82-83.

[32] Focusing on foreign employees, Noboru Umetani analyses the period from 1825, when the Expulsion Edict was issued, to 1868, the first year of the Meiji era, and divided this period into three periods. In this paper, the author has used the dispatch of overseas students to divide the different period. In order to avoid further complications, Umetani's first period will be taken as the early period of the foreign employees, and his second and third periods will be the later period.

about 60 Westerners were in Japan during the first period, of whom about ten were foreign employees. Most worked at the Nagasaki Navy School and the Nagasaki English School as teachers. During the second period, there were about 80 individuals, about 25 of whom were foreign employees. Among these people, a comparatively large number worked for educational institutions, military institutions, and the Yokohama dockyard. During the third period, there were about 90 individuals before 1871 (when proper data first appear), of whom about 55 were foreign employees. A great many of those worked for the Mint, the railways, and for educational institutions.[33]

Table 5 gives an idea of the number of foreign employees from 1872 to 1878. In 1872 there were 369 public-sector foreign employees. In 1873, there were 507 public-sector foreign employees and 73 private-sector foreign employees, 580 in total. In 1875, which was the peak of foreign employment, there were 527 public-sector foreign employees and 325 private-sector foreign employees, 852 in total. Looking at where these *oyatoi* were employed, 35 to 40 percent of the public-sector *oyatoi* were employed in areas related to technology. If craftsmanship is included, fully 40 percent were engaged in teaching chemical technology and its applications for modernisation. The next largest area was education, with 25 to 30 percent employed by educational institutions.

Noboru Umetani, *Oyatoi gaikokujin: Gaisetu*, pp. 17-42.

[33] The author has confirmed whether the foreigners who came to Japan as listed in "Rainichi Nenpyo" [Chronology] at the end of Hiroshi Takeuchi, ed., *Rainichi Seiyojinmei jiten* [A Dictionary of Westerners in Japan] (Nichi Gai Asoshietsu 1983) were in fact foreign employees or not. This was done by cross-referencing multiple sources, centering on those of the UNESCO East Asian Study Center; see Yunesuko Higashi Ajia Bunka Kenkyu Senta, ed., *Shiryo oyatoi gaikokujin* (Documents on Foreign Employees), Shogakukan, 1975.

Table 5. Statistics on Foreign Employees in Japan 1872-78*

		Education	Engineer	Office Job	Claftsman	Other	Sub-total	Total
1872	Public	102 (28%)	127 (34%)	43 (12%)	46 (12%)	51 (14%)	369	369
	Private							
1873	Public	127 (25%)	204 (40%)	72 (14%)	35 (7%)	69 (14%)	507	580
	Private	43 (59%)	16 (22%)	2 (3%)	9 (12%)	3 (4%)	73	
1874	Public	151 (29%)	213 (41%)	68 (13%)	27 (5%)	65 (12%)	524	650
	Private	44 (35%)	44 (35%)	5 (4%)	9 (7%)	24 (19%)	126	
1875	Public	144 (27%)	205 (39%)	69 (13%)	36 (7%)	73 (14%)	527	852
	Private	52 (16%)	75 (23%)	29 (9%)	7 (2%)	162 (50%)	325	
1876	Public	129 (28%)	170 (36%)	60 (13%)	26 (6%)	84 (18%)	469	922
	Private	54 (12%)	163 (36%)	37 (8%)	19 (4%)	180 (40%)	453	
1877	Public	109 (29%)	146 (38%)	55 (15%)	13 (3%)	58 (15%)	381	838
	Private	62 (14%)	169 (37%)	32 (7%)	46 (10%)	148 (32%)	457	
1878	Public	101 (31%)	118 (37%)	51 (16%)	7 (2%)	44 (14%)	321	820
	Private	54 (11%)	237 (47%)	20 (4%)	8 (2%)	180 (36%)	499	

* Source: Noboru Umetani, *Oyatoi gaikokujin gaisetu* [An Outline of Foreign Employees], pp. 52-53, Kashima Kenkyujo, 1977.

Compared to this, the number of private-sector *oyatoi* overtook the number of public-sector *oyatoi* in 1877, and in 1897, it reached as many as 760.[34] As was the case with public-sector foreign employees, many of the private-sector foreign employees worked for technological or educational institutions. However, a great number worked in other fields. The number of foreign employees from 1872 until July 1899, when the unequal treaties between Japan and Western countries were revised and the employment was abolished (Cabinet Order, No. 5), was about 700 per year on average, and varied between a high of 922 in 1876 and a low of 422 in 1886.

When these statistical materials on *oyatoi* are compared with those on overseas students, a very interesting fact emerges. That is, 182 students in 1870 and 225 students in 1871—which is the largest number in this period—were sent to a number of different countries, but in 1873, when they were instructed to return to Japan, the number suddenly decreased. As if to make up for this decrease, the number of foreign employees increased from 369 in 1872 to 580 in 1873, 650 in

[34] Noboru Umetani, *Oyatoi gaikokujin: Gaisetu*, pp. 52-53.

1874, 852 in 1875, and then to a high of 922 in 1976.[35]

Table 6. Statistics on Government Investment in Overseas Students*

Yen

Month/year	Expenditure of Overseas Students
Dec. Keio 3 (1867) ～ Dec. Meiji 1 (1868)	4,000
Jan. Meiji 2 (1869) ～ Sept. Meiji 2 (1869)	18,000
Oct. Meiji 2 (1869) ～ Sept. Meiji 3 (1870)	70,000
Oct. Meiji 3 (1870) ～ Sept. Meiji 4 (1871)	153,000
Oct. Meiji 4 (1871) ～ Dec. Meiji 5 (1872)	295,000

* Source: Minoru Ishizuki, *Kindai Nihon no kaigai rygakusei-shi* (*op. cit.*), p.231 (Table 17). At this time, one Japanese yen was equivalent to one (US) dollar.

Let us examine this point in terms of government expenditure. According to Table 6, from the end of 1867 until February 1869, expenditures involved in sending students abroad was only 4,000 yen, but in only nine months, between February and November 1869, that rose to 18,000 yen; during the year from October 1870 until October 1871 it increased to 153,000 yen, and from November 1871 until December 1872, it reached 295,000 yen.

Furthermore, as is shown in Table 7, it was planned that the Ministry of Education alone would spend slightly under 300,000 yen even after 1872. In fact, total government expenditure went as high as 355,660 yen (which included 296,000 yen in education ministry outlay) in 1873, although it decreased from 414,000 yen in February 1872. Compared to this, expenditure on foreign employees in February 1872 was 454,500 yen, which is about the same as the expenditure on overseas students

[35] This indicates that the Iwakura Mission served as a stimulant to change the means of modernisation from sending Japanese students overseas to importing “living machines,” or foreign employees.

in the same year. While government spending on students decreased after 1872, expenditures on foreign employees decreased after the 1874 peak of 116,211 yen.

Table 7. Statistics on Expenditure for Overseas Students and Foreign Employees*

Yen

	Ministryof Education: Cost on Overseas Students	Government: Total Costs on Overseas Students	Oyatoi Costs
Feb., 1872		414,000	454,500
1872	296,000		83,805
1873	296,000	355,660	109,004
1874	276,000		116,211
1875	276,000		115,288
1876	223,000		97,712

* Sources: Yoshio Sakatani et al., *Segai Inoue-ko den,* vol. 2, p. 484; Minoru Ishizuki, *Nihon no kaigai ryugakusei-shi*, p. 224, Table 16 and p. 131, Table 18; Noboru Umetani, *Oyatoi gaikokujin gaisetsu*, p. 52, Table 1.

Let us consider some other factors in the dispatch of students to Western countries and the hiring of foreigners in Japan, particularly the fact that it was the group of ministries making up the Meiji government that undertook these activities and became the driving force of Japan's modernisation. As seen in Table 8, in 1870, the number of overseas students was 50, and the next year the number reached a peak of 67, but in 1872 it was 44 and in 1873 it dramatically decreased to 10. In contrast, as Table 9 shows, the total number of foreign employees was 213 in 1872, but reached the peak of 476 in 1874. It decreased a little afterwards, but even in 1879, the number was 271. Looking at the statistics of each ministry, a typical case being the Ministry of Education, we

can see clearly the contrast between the decrease in overseas students after the peak in 1870 and the increase of foreign employees, peaking at 77 in 1874.

Table 8. Statistics on Overseas Students from Respective Ministries*

	Grand Council of State	Ministry of Financce	Ministry of Military	Ministry of Education	Ministry of Engineer	Ministry of Justice	Ministry of Imperial Household	Kaitakushi**	Total
1870	3	3	17	26			1		50
1871	9	10	19	7	6	2		14	67
1872		10	3	1	10	1		19	44
1873	1	1	1		7				10

*Source: Noboru Umetani, *Oyatoi gaikokujin gaisetsu*,, pp. 69, 71, and 72.

** Colonisation Board responsible for the administration of Hokkaido (1869-82)

Table 9. Statistics on *Oyatoi* Employed by Respective Ministries*

	Grand Council of State	Foreign Affairs	Ministry of Financce	Ministry of Military	Ministry of Education	Ministry of Engineer	Ministry of Justice	Ministry of Imperial Household	Kaitakushi**	Total
1872	1	2	19	9	24	153			5	213
1874	5	14	27	38+66 (104)	77	228	8	2	11	476
1879	1	3	14	12+27 (39)	49	144	9		12	271

* Source: Noboru Umetani, *Oyatoi gaikokujin gaisetsu*, pp. 69, 71, 72, and 74.

** Colonisation Board responsible for the administration of Hokkaido (1869-82)

We can compare trends in numbers of students sent abroad with numbers of *oyatoi*, or we can study comparative government expenditure over time; we can also look at numbers of students going abroad compared with *oyatoi* employed by the respective ministries. No matter how we look at the figures, it is clear that around the time of the Iwakura Mission, the emphasis changed in the method used to import modern civilisation, from sending students overseas to employing foreigners. This change in policy was quite natural, if the inefficiency of the system of study abroad noted above is considered. However, sending students overseas became important again during the fifth period, beginning in 1874. That was the start of a period when, rather than one-way import of

technology from the West, specialisation and university-level overseas study were required to contribute to the development of new academic areas and scientific technology by gradually decreasing foreign employees and increasing numbers of trained Japanese teachers and engineers. In this period, a policy of involving "fewer people of superior ability aimed at more productive and more effective study abroad" was adopted.[36] Let us make clear the role fulfilled by English people among the *oyatoi*. As seen in Table 10, comparing 1872, 1874, and 1879, the largest number of Englishmen were employed by the Ministry of Engineering, and that ministry had over 100 English employees constantly, with a peak of 185 in 1874.

Table 10. Statistics on *Oyatoi* in Respective Ministries in the Same Years*

		England	USA	France	Germany	Others	Total
Grand Council of State	1872			1			1
	1874	1	1	1	1	1	5
	1879		1				1
	1885	1	1	1	3		6
Foreign Affairs	1872		2			1	3
	1874	2	6	1	1	4	14
	1879		1	1	1		3
	1885	3	2			1	6
Home Affairs	1872						
	1874	9	4	7		7	27
	1879	7	7	1	8	11	34
	1885				3	2	5
Ministry of Finance	1872	7	3	7		2	19
	1874	16	7			4	27
	1879	5	4		2	2	13
	1885	3	2			1	6

		England	USA	France	Germany	Others	Total
Ministry of Military	1872	3		4		2	9
	1874	0+29		36+36		2+1	104
	1879	0+15		11+1	0+1	1+1	31
	1885	0+18	0+1	51+1	1+6	4+3	39
Ministry of Education	1872	5	6	4	8	1	24
	1874	25	14	10	24	4	77
	1879	7	14	5	12	5	43
	1885	11	2	2	9	2	26
Ministry of Engineer	1872	104		33		16	153
	1874	185	7	13	6	17	228
	1879	104	2	11	5	12	134
	1885	26				3	29
Ministry of Justice	1872						
	1874	1	1	4		2	8
	1879	1	2	4			7
	1885	3		1	1		5
Ministry of Imperial Household	1872						
	1874				2		2
	1879						
Kaitakushi**	1872		5				5
	1874	1	7		3		11
	1879	1	9			2	12

* Source: Hideyuki Aoyama, p.346.

** Colonisation Board responsible for the administration of Hokkaido (1869-82)

We can see from Table 11 the specific occupations in 1872 of French and English employees of the Ministry of Engineering. Many English belonged to the departments of engineering, mining, railways, lighthouses, telegrams, and weights & measures, while more French tended to work in the departments of shipbuilding, manufacturing, iron, and production. This division of labour between the English and the French reflects, for example, the tradition of the Yokohama dockyard, which left French in full charge of the construction. Though this division was not yet based on “Subjects

and Each Country's Forte" (r*yugaku kuniguni shugaku kamoku*), it was a first step toward realising this. The second, largest number of Englishmen were with the Ministry of Finance, which employed as many as 16 in 1874. This number was influenced greatly by the employment of eight people, including T.W. Kinder (1817-84) in the Mint.

Table 11. Statistics on English and French Employees in the Ministry of Engineering*

	Engineering	Mines	Railways	Lighthouse	Telegrams	Ship Building	Iron Manufacture	Manufacturing Production	Measurements
English	2	3	52	33	10				4
French		1				24	2	6	

* Source: Noboru Umetani, *Oyatoi gaikokujin gaisetsu*, p. 70.

Compared to this, many Americans belonged to the Ministry of Foreign Affairs, which shows that the United States played a large role in diplomacy from the closing days of the Tokugawa shogunate until the beginning of the Meiji period. That was also the case with the Kaitakushi (Colonisation Board), which was responsible for the administration of Hokkaido. Many French employees worked for the Ministry of Justice. As for the Ministry of War,[36] it was decided in 1870 to import England's navy system and the army system of France, but there were quite a few Frenchmen in the navy and they played an influential role in 1874, though the majority of foreign employees in the navy were English. However, in 1879, with the English-modeled navy separated from the French-modeled army, influence from Germany began to creep into the type of army Japan was building.

Compared to these ministries, each of which was strongly influenced by specific countries, in the Dajokan (Grand Council of State) and Ministry of Home Affairs, an equal number of English,

[36] For detailed research on the influence of England in the navy and of France in the army, see the following two books by Hiroshi Shinohara: *Kaigun sosetsu-shi—Igirisu gunji komon no kage* [A History of the Founding of the Navy: The Shadow of English Military Advisers], Libro, 1986 and *Rikugun shosetsu-shi* [A History of the Founding of the Army], Libro, 1983.

Americans, French, and Germans were employed. However, as can be seen in the case of the Ministry of Education, from 1874 onward the influence of Germany increased relative to that of England, France, or the United States.

Ⅷ Epilogue

Japanese leaders in the closing days of the Tokugawa shogunate, whether advocates of opening the country or advocates of "expelling the barbarians," were strongly conscious of the necessity to strengthen the military and wished to acquire modern military technology. When they turned to the West seeking a source of the needed technology, they quickly understood that it was no longer Holland but England that had not only the military technology, the sciences, and other systems to support military strength, but also the economic power to generate and maintain it. This judgment was based on information gained from foreign visitors who came to Japan in the closing days of Tokugawa shogunate, such as G.H.F. Verbeck, and new information brought back by the 1862 Bunkyu Mission of the Tycoon.

England was indeed the "most outstanding" of the powers and a mature nation. Japan's leaders in the bakumatsu and early Meiji periods, determined to import the necessary civilisation from England, and also from France and the United States, drew up the " Subjects and Each Country's Forte " and used it as a guideline to send students to various countries and to hire foreign experts from the West. In the beginning, the people controlling these programs expected to send out fledgling "incomplete living machines" to the West and have them come back "finished," but when they understood the inefficiency of that approach, they turned to importing already completed " living machines," that is, foreign employees. It was the Iwakura Mission that marked the juncture in this change of direction. In this period, England played a big role as a model country. Japan sent incomplete" living machines" to England and invited completed" living machines" from England to import the knowledge of engineering, mining, railways, telegraphs, commercial law, trade, the exchange of gold and silver, which were needed in the Ministry of Engineering, the Ministry of

Civil Affairs, and the Ministry of Finance.

Neither the students who sought knowledge overseas nor the foreign employees, however, could be an everlasting stimulant for modernisation, though they were effective in triggering its beginning. It was after 1874 that a continuous stimulant began to be needed. As soon as it was realised that a different kind of education was needed to become the underlying, lasting energy of modernisation, especially specialised education and study at the university level, Japan began to shift its sights from England, France, and the United States as model countries to Germany, which was led by developing Prussia and Prussian King William I. Germany began to emerge as Japan's prime model country from about 1874, long before the "Political Crisis of 1881."